BARU, A.V.; SAYDASHEVA, D.K.

Effect of the amount of food reinforcement on the number of conditioned reflexes in experiments with rabbits. Trudy Inst.fiziol. 8:114-121 '59. (MIRA 13:5)

1. Laboratoriya sravnitel'noy fiziologii vysshey nervnoy deyatel'nosti (zaveduyushchiy - B.V. Pavlov) Instituta fiziologii im. I.P. Pavlova AN SSSR.

(CONDITIONED RESPONSE)

BARU, A.V.; BOLOTINA, O.P.; PAVLOV, B.V.; PRAZDNIKOVA, N.V.; SAF'YANTS, V.I.; CHEBYKIN, D.A.

Influence of alimentary excitability, and the size and quality of alimentary reinforcement on the conditioned reflex activity of represnetatives of some classes of vertebrates (fishes, birds, and mammals). Trudy Inst. fiziol. 9:274-284 '60. (MIRA 14:3)

1. Laboratoriya sravnitel'noy fiziologii vysshey nervnoy deyatel'nosti (zaveduyushchiy - B.V.Pavlov) Instituta fiziologii im. I.P.Pavlova.
(CONDITIONED RESPONSE) (NUTRITION)
(VERTEBRATES)

BARU, A.V.

Materials on the characteristics of delayed conditioned reflexes in rabbits. Trudy Inst. fiziol. 10:201-202 '62 (MIRA 17:3)

1. Laboratoriya sravnitel'noy fiziologii vysshey nervnoy deyatel'nosti (zav. - B.V. Pavlov) Institut fiziologii imeni Pavlova AN SSSR.

PAVLOV, B.V.; BARU, A.V.; BOLOTINA, O.P.; PRAZDNIKOVA, N.V.

Data on comparative physiology of trace conditioned reflexes. Zhur. vys. nerv. deiat. 12 no.4:630-636 Jl-Ag '62. (MIRA 17:11)

1. Laboratory of Comparative Physiology of Higher Nervous Activity, Pavlov Institute of Physiology, U.S.S.R. Academy of Sciences, Leningrad.

BARU, A.V.; MARUSEVA, A.M.

Electric responses of the peripheral section of the auditory system in various mammals. Fiziol. zhur. 49 no.11:1330-1336 N '63. (MIRA 17:8)

1. Laboratoriya fiziologii slukhovogo analizatora Instituta fiziologii imeni Pavlova AN SSSR, Leningrad.

BARU, A.V.

Effect of caffeine on the higher nervous activity in animals. Nauch.soob. Inst.fiziol. AN SSSR no.3:16-21 '65. (MIRA 18:5)

1. Laboratoriya sravnitel'noy fiziologii vysshey nervnoy deyatel'nosti (zav. - B.V.Pavlov) Instituta fiziologii imeni Pavlova AN SSSR.

BARU, Filip, ing.

Equipment for preparation, transportation, and processing of concrete. Constr Buc 17 no.790:4 27 F '65.

1. Assistant Technical Director, Technical Directorate, Ministry of the Construction Industry.

8(0) SOV/112-59-4-6991

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 4, p 80 (USSR)

AUTHOR: Vashura, V. F., and Baru, I. I.

TITLE: Approximate Relations That Determine the Operation of an Induction Motor With Different Rotor Resistances

PERIODICAL: Tr. Khar'kovsk. politekhn. in-ta, 1957, Nr 12, pp 3-11

ABSTRACT: Operation of a slip-ring induction motor with 3 different resistors connected in the rotor phases is considered. The asymmetrical EMFs set up in the rotor by the elliptical rotating field is resolved into symmetrical components; only positive-phase-sequence EMFs are taken into account. The equations for rotor-phase currents are developed with a consideration of phase resistances only. The instantaneous value of the torque is

$$d = \frac{3E^2}{\omega_o R_{equiv}} s,$$

Card 1/3

Approximate Relations That Determine the Operation of an Induction Motor . . . .

where E is the rotor-phase EMF at the slip $s = 1$; ω_o is the synchronous angular velocity of the rotor;

$$R_{equiv} = \frac{R_a R_b + R_a R_c + R_b R_c}{R_a + R_b + R_c}$$

here R_a, R_b, and R_c are rotor-phase active resistances. It is pointed out that the electric losses in a rotor with different active resistances of its phases are equal to the losses when each resistance is equal to R_{equiv}. The asymmetry factor γ, which characterizes the ratio of the negative-phase-sequence to the positive-phase-sequence currents, is equal

$$\gamma = \frac{I_2}{I_1} = \sqrt{1 - \frac{R_{equiv}}{R_{av}}}, \text{ where } R_{av} = \frac{R_a + R_b + R_c}{3} .$$

SOV/112-59-4-6991

Approximate Relations That Determine the Operation of an Induction Motor . . . .

It is pointed out that the above relations permit calculating asymmetrical resistance steps in a rheostat and permit constructing motor-starting diagrams that would show phase currents during starting.

A.N.B.

Card 3/3

SOV/110-110-58-8/28

AUTHOR: Baru, I.I. (Cand.Tech.Sci.)

TITLE: The Classification of Contacts and Contact Joints (O klassifikatsii kontaktov i kontaktnykh soyedineniy).

PERIODICAL: Vestnik Elektropromyshlennosti, Nr.11, 1958, pp.31-33, (USSR)

ABSTRACT: This article discusses the terminology used in the classification of contacts, e.g. sliding, fixed, rolling, etc., and shows that in certain books on the subject, the meaning of some of the terms is confusing and obscure and the classifications given are not logical. Particular mention is made of the book 'Electrical Contacts' by Prof. A.Ya. Buylov the book of Prof. M.A. Babikov, the book of V.V. Afanasyev, and several others. The terminology used in standard GOST-2774-44, 'Industrial Low-Voltage Apparatus' is also criticised. A classification table of contacts and contact joints formulated by the author is given in the form of a chart. There is 1 table and 4 Soviet references.

Card 1/2

SOV/110-58-11-8/28

The Classification of Contacts and Contact Joints.

SUBMITTED: December 23, 1957.

1. Electrical contacts--Classification 2. Electrical contacts--Dictionaries

Card 2/2

SOV/144-59-12-14/21

AUTHORS: Baru, I.I., Candidate of Technical Sciences, Dotsent, Vashura, B.F., Doctor of Technical Sciences, Professor, Lyubchik, M.A.

TITLE: Motion of the Armature of an Alternating Current Electro-Magnet

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Elektromekhanika, 1959, Nr 12, pp 127-134 (USSR)

ABSTRACT: Experimental observations of the forces exerted by a.c. electro-magnets depend very much on the test procedure. For a given air-gap, "pull-in" and "pull-out" tests give different results, mainly as a result of armature vibration. The motion of the armature depends on the force developed by the electro-magnet and the counter-acting force. A certain voltage is required to ensure that the armature pulls in smoothly without vibrating on the stop. The present article derives approximate relationships for the motion of the armature near the stop; it relates to an E-shaped system with one voltage coil. The assumptions made are stated. The equations for the electro-magnetic forces are given by Eq (1). Introducing the torque applied to the centre pole

Card 1/3

SOV/144-59-12-14/21

Motion of the Armature of an Alternating Current Electro-Magnet

and equating it to the resultant torque of all poles, Eq (2) is obtained; this is equated to the counter-torque produced by the load. Motion of the armature near the stop is examined during smooth change of the voltage applied to the coil. Graphs of the changes in the referred force as a function of time for various values of voltage are plotted in Fig 2. Motion of the armature is then considered for different values of voltage. The first is so low that the armature does not move and the second is the limiting case where the force and counter-force are equal and the armature still does not move; Fig 4 relates to these two cases. Finally there is the circumstance of a further slight increase of voltage that permits vibration indicated in Fig 5. This case is considered in somewhat more detail, noting the various kinds of vibration that may occur. Attention is then given to the lowest voltage at which the armature pulls in smoothly without vibration and to the still higher voltage at which the armature still pulls in without bouncing but more rapidly. After thus studying the physics of the process of armature motion, the equations of motion are derived.

Card 2/3

SOV/144-59-12-14/21

Motion of the Armature of an Alternating Current Electro-Magnet

The instantaneous value of the resultant force is given by Eq (3) and the constants of integration are derived from the initial conditions. Eq (7) and (10) give the speed and position of the armature as functions of time. By substitution of the appropriate conditions into Eq (10), expressions can be derived for vibration of the armature on the stop. It is shown that vibration occurs on pull-in when the force applied to the centre pole is 65% of the amplitude of the electro-magnetic force; on pulling-out this ratio would be 0.35. The formulae derived are based on referred forces and so can be applied to any configuration of a.c. magnet system. They may also be used to determine the changes in armature position and speed as function of time. There are 12 figures.

ASSOCIATION: Khar'kovskiy politekhnicheskiy institut (Khar'kov Polytechnical Institute)

SUBMITTED: September 13, 1959

Card 3/3

VASHURA, B.F.; BARU, I.I.

Choice of resistance elements for air-colled d.c. and a.c. starting rheostats. Trudy KhPI 30 no.1:3-24 '60. (MIRA 14:9)
(Electric resistors) (Electric motors--Starting devices)

VASHURA, B.F.; BARU, I.I.

Analytic calculation of the resistances of excitation rheostats.
Trudy KhPI 30 no.1:25-40 '60. (MIRA 14:9)
(Electric generators) (Voltage regulators)

BARU, I.I., insh.

Choice of resistances for air cooled d.c. starting rheostats. Vest. elektroprom. 31 no.9:74-76 S '60. (MIRA 15:5)
(Electric rheostats)

STUPEL', Pavvel' Aronovich; VASHURA, B.F., prof., retsenzent; SUKACHEV, A.P., dots., retsenzent; KALUZHNIKOV, N.A., retsenzent; BAKU, I.L., prof., otv.red.; VAYNBERG, D.A., red.; CHERNYSHENKO, Ya.T., tekhn.red.

[Electromechanical relays; principles of the theory, analysis, and design] Elektromekhanicheskie rele; osnovy teorii, proektirovaniia i rashcheta. [A textbook] Uchebnoe posobie. Izd.2. Khar'kov, Izd-vo Khar'kovskogo univ., 1956. 354 p. (MIRA 12:5)
(Electric relays)

BARU, I. R.

"French Code on the Obligations and Regulations of Conduct and Ethics for Physicians." Sov. Zdrav., No. 3, 1948.

Inst. Organization of Public Health & History of Medicine, im. N. A. Semashko, Dept. Hygiene, Microbiology & Epidemiology.

PAVLOV, B.A., BARU, O.P., BOLOTINA, N.V., PRAZNIKOVA, N.V., CHEBYKIN, D.A.

"On the comparative physiology of the delayed and traced conditioned reflexes in some species of vertebrates."

Report submitted, but not presented at the 22nd International Congress of Physiological Sciences.
Leiden, the Netherlands 10-17 Sep 1962

ACCESSION NR: AP5020699 UR/0 14/65/000/008/0019/0023

669.15-194:669.24'26'28:620.193:661.419 51 49

AUTHORS: Pokin, M. N. (Candidate of chemical sciences)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203810005-2"

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203810005-2"

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203810005-2"

[illegible] of the passive range), were determined from the

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203810005-2"

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203810005-2"

AUTHOR: Fokin, M. N.; Konstantinova, Ye. V.; Baru, R. L.

ORG: none

TITLE: Corrosion of nickel-molybdenum and nickel-chromium-molybdenum alloys and anodically protected titanium in hydrochloric acid

SOURCE: Korroziya metallov i splavov (Corrosion of metals and alloys), no. 2. Moscow, Izd-vo Metallurgiya, 1965, 148-160

TOPIC TAGS: nickel alloy, molybdenum alloy, chromium containing alloy, titanium, corrosion, hydrochloric acid / NIMO-28 Ni-Mo alloy, NIKhMO-20-10 Ni-Cr-Mo alloy, VT1 titanium alloy

ABSTRACT: This investigation deals with the corrosion behavior of Ni-Mo and Ni-Cr-Mo alloys in HCl of various concentrations (5-10%) and temperatures with the object of determining their suitability as substitutes for tantalum as a structural material. The 690-hr corrosion tests were carried out in 0.5-1.0 liter flasks with a reflux condenser, with weighing of the specimens after every 16, 48, 96, 190, 290 and 690 hr of exposure. It is established that the corrosion rate changes with increasing concentration of HCl, passing through a maximum in the 15-20% range. NIMO-28 Ni-Mo alloy

Card 1/2

may be recommended as a structural material in HCl of any concentration at temperatures of up to 80°C, while the NiKhMO-15-5 and NiKhMO-20-10 Ni-Cr-Mo alloys may be recommended for use in HCl at any concentrations at temperatures of only up to 60°C, owing to the presence of Cr which deteriorates the corrosion resistance of these alloys. A comparison of the findings on the corrosion resistance of these alloys in liquid and vapor phases above the HCl solutions shows that the corrosion rate of specimens of NiMO-28 alloy in the vapor phase at 100°C greatly increases whereas at 80° there is virtually no difference in corrosion rates for either phase; this difference at 100°C is attributable to the increase in convective mixing in the thin condensation film of the acid solution on the specimens. Further, it is found that anodic protection in HCl media is effective for Ti and its alloys. Laboratory electrochemical studies of the corrosion of VTi titanium in 20% HCl at 20 and 80°C, performed with the aid of an electronic potentiostat, showed that in this case anodic protection against the corrosion of Ti can be accomplished if the potential range corresponding to passive state is -0.1 v to +2.4 v and the critical current density is 0.22 ma/cm^2. During evaporation of 20% HCl (at 60 and 90°C) the corrosion of Ti in the vapor phase may increase very sharply, however, and this limits the applicability of the anodic protection of Ti in these conditions. There apparently exists a certain critical thickness of the anodic film (0.05 μ) beyond which the film gets partly disintegrated; there is reason to believe that the corrosion cracking of Ti in fuming HNO_3 at room temperature is due to similar causes. Orig. art. has: 11 figures, 4 tables.

SUB CODE: 07, 11 SUBM DATE: 19Jul65/ ORIG REF: 004/ OTH REF: 003

Card 2/2

S/058/61/000/010/049/100
A001/A101

24,7900

AUTHORS: Baru, V.G., Zaripov, M.M.

TITLE: Calculation of times of spin-lattice paramagnetic relaxation in hydrated cobalt salts

PERIODICAL: Referativnyy zhurnal.Fizika, no.10, 1961, 164-165, abstract 10V366 (V sb. "Paramagnitn. rezonans", Kazan', Kazansk, un-t, 1960, 68-74)

TEXT: In the framework of Van Vleck's theory ("Phys. Rev.", 1940, v.57, 426) the authors calculated the spin-lattice paramagnetic relaxation time taking into account the contribution from spin-orbital coupling and crystalline fields of tetragonal and trigonal symmetries. In calculations were used constants obtained in the interpretation of the paramagnetic resonance spectrum of hydrated Co salts (Abrahams, A., Pryce, M.N.L., "Proc. Roy. Soc.", 1951, v. 206, 173). Direct processes and Raman processes of scattering of phonons on spins are considered. It is shown that the presence of a considerable admixture to the ground 4F-term of Co ion of an excited 4P-term does not cause any peculiarities in the form of dependence of relaxation time on temperature and constant magnetic field.

Card 1/2

Calculation of times ...

S/058/61/000/010/049/100
A001/A101

A quantitative comparison with experimental data (Bleaney, B., Ingram, D.J.E., "Nature", 1949, v. 164, 116) confirms the correctness of relaxation mechanism selected by the authors.

U. Kopvillem

[Abstracter's note: Complete translation]

Card 2/2

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203810005-2"

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203810005-2"

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute of Physical Chemistry, Academy of Sciences, SSSR)

S/181/62/004/007/022/037
B102/B104

AUTHORS: Baru, V. G., and Khmel'nitskaya, Ye. M.

TITLE: The recombination processes in artificial PbS single crystals

PERIODICAL: Fizika tverdogo tela, v. 4, no. 7, 1962, 1897-1900

TEXT: The high defect concentration (Pb - acceptors, S - donors) in artificially grown PbS single crystals is due to the nonuniformity of the temperature field when the crystal, grown in a melt, is cooled down. The statistics of the recombination processes attendant upon such thermal defects are studied theoretically. Assuming Boltzmann distribution in bands and local levels, and allowing for the fact that both types of defects form very shallow local levels, expressions are derived for the recombination rates, the defect concentrations, and the coefficients of

$n \approx 3 \cdot 10^{15}$ cm^{-3} and that in all cases the lifetimes are shorter in radiationless recombinations than in radiative recombination. In the latter mechanism, τ is a function of n^2; for p-type substances, $\tau p^2 = 2 \cdot 10^{27}$ $sec \cdot cm^{-6}$, which agrees with measurements carried out by N. S. Baryshev and I. S. Aver'yanov ($3 \cdot 10^{27}$ $sec \cdot cm^{-6}$). There is 1 figure.

ASSOCIATION: Gosudarstvennyy opticheskiy institut im. S. I. Vavilova, Leningrad (State Optical Institute imeni S. I. Vavilov, Leningrad)

SUBMITTED: March 1, 1962

AVER'YANOV, I.S.; BARYSHEV, N.S.; B[illegible]U, V.G.; YUDINA, G.I.

Some data on the production of lead sulfide single crystals. Fiz. tver. tela 4 no.9:2349-2354 S '62. (MIRA 15:9)

1. Gosudarstvennyy opticheskiy institut imeni S.I. Vavilova, Leningrad.
(Lead sulfide crystals)

BARU, V.G.

Effect of irradiation on the adsorption and catalytic properties of semiconductors and dielectrics. Usp.khim. 32 no.11:1340-1366 N '63. (MIRA 17:3)

1. Institut fizicheskoy khimii AN SSSR.

BARU, V.G.; VOL'KENSHTEYN, F.F.

Possible mechanism of the influence of the admixture of radioisotopes on the chemisorption and catalytic properties of semiconductors. Izv. AN SSSR Ser. khim. no.11:1935-1943 N '64 (MIRA 18:1)

ACC NR: AP6011958 SOURCE CODE: UR/0195/65/006/002/0269/0278

AUTHOR: Baru, V.G.

ORG: Institute of Physical Chemistry, AN SSSR (Institut fizicheskoy khimii AN SSSR)

TITLE: Adsorptive properties of a charged semiconductor

SOURCE: Kinetika i kataliz, v.6, no. 2, 1965, 269-278

TOPIC TAGS: chemisorption, electric field, adsorption, thermodynamic equilibrium, semiconductor device

ABSTRACT: This paper investigates the changes in the adsorptive power, associated with the charging of the sample, which, as a rule, occurs in the field effect method. From the point of view of the electron theory of chemisorption, the nature of the effect is as follows: The charge induced by the electric field, in distributing itself between the volume and surface of the sample, produces self-consistent changes in the potential energy and density of the electrons (holes) localized in surface levels of adsorption origin; and in the process the equilibrium between the "strong" and "weak" forms of the chemisorption bond shifts, producing, in turn, a shift in the adsorption equilibrium from the gas phase.
For actual semiconductor models, the paper also finds and investigates the dependence of the work function and the adsorptive power on the charge of the sample for conditions of thermodynamic equilibrium. A discussion is given of the effect of the electric field on the adsorptive properties of the semiconductor. The special

Card 1/2 UDC: 541.183.03: 537.311.33

ACC NR. AP6011748

The author expresses thanks to F. F. Vol'kenshteyn for the suggestions, valuable advice, and discussions of the results. Orig. art. has: 2 figures and 26 formulas. [JPRS]

SUB CODE: 20, 07 / SUBM DATE: 14Feb64 / ORIG REF: 006 / OTH REF: 002

Card 2/2 Hn

05844

28 (4) SOV/76-33-10-42/45

AUTHORS: Sklyarenko, S. I., Samson, Yu. U., Baru, V. Ye.

TITLE: An Apparatus Used for Measuring the Electrical Conductivity of Anhydrous Solutions

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 10, pp 2375 - 2378 (USSR)

ABSTRACT: Since an accuracy of measurement of 1-2% is sufficient for many investigations of electrical conductivity, the authors devised a method used for rapid plotting of curves of electrical conductivity. Moisture traces are not allowed to enter the solution, and the afore-mentioned accuracy of measurement is guaranteed. The apparatus designed for such purposes (Fig 1) contains an electrolytic cell with platinum electrodes placed in a vessel which is regulated by a TS-15 thermostat. There are also two containers serving the measurement of liquids. The entire arrangement is mounted on a perpendicular hemispherical plate. The latter features three indentations at the edge so that it may be brought into three different positions by rotation. The liquid may thus be poured in, and the vessel can be brought into the position of measurement. The design of the apparatus is

Card 1/2

05844

An Apparatus Used for Measuring the Electrical Conductivity of Anhydrous Solutions

SOV/76-33-10-42/45

based on the principle of a Wheatstone bridge circuit. It contains an LV9-2 valve voltmeter and a ZG-12 sound generator as alternating-current source. The solution is prepared and filled into the ampoule in a hermetically sealed chamber (Fig 2). The technique is described in detail. The electrolytic capacity of the cell was measured with the help of a potassium chloride solution; it was 0.272 cm^{-1}. The operation of the apparatus was checked by measuring the electrical conductivity of acetic acid solutions (Table). The resultant values are in good agreement with publications. The authors measured the electrical conductivity of the systems (1) silicon tetraiodide - pyridine, (2) silicon tetraiodide - nitrobenzene (Fig 5), (3) silicon tetraiodide - aniline, and (4) silicon tetraiodide - dichlorodiethyl ether (Fig 6) at 25°. There are 6 figures, 1 table, and 3 references, 2 of which are Soviet.

SUBMITTED: March 27, 1959

Card 2/2

SAMSON, Yu.U.; RUZINOV, L.P.; RESHETNIKOVA, N.S.; BARU, V.Ye.

Electric conductivity of vanadium dichloride solutions in a molten equimolecular mixture of sodium and potassium chlorides. Zhur. fiz. khim. 38 no.2:481-483 F '64. (MIRA 17:8)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut redkometallicheskoy promyshlennosti.

GLAVINSKAYA, T.A.; KOCHETOV, D.P.; BARU, Ye.I.

State of the cardiovascular system in patients with lupus erythematosus. Sov.med. 26 no.12:49-55 D '62. (MIRA 16:2)

1. Iz Gor'kovskogo nauchno-issledovatel'skogo kozhno-venerologicheskogo instituta (dir. - kand.med.nauk O.D. Kochura) i kafedry kozhnykh i venericheskikh bolezney (zav. - zasluzhennyy deyatel' nauki prof. M.P. Batunin) Gor'kovskogo meditsinskogo instituta.
(CARDIOVASCULAR SYSTEM--DISEASES) (LUPUS ERYTHEMATOSUS)

BARUCKI, Tadeusz

Felix Candela. Architektura Pol no.11/12:476 '61.

BARUCKI, Tadeusz

New Beograd. Architektura Pol no.3:115-120 '62

Barshoglu, I.

Heating of [illegible]

BARUHOGLU, Ilie, ing.

On the unification of the technical standards of work in the glass industry. Industria usoara 8 no.6:231-234 Je '61.

BARUHOGLU, Ilie, ing.

Organization of labor through the rolling band method. Industria usoara 9 no.1:21-25 Ja '62.

BARUHOGLU, Ilie, ing.

The setting of output rates and the work extension on the rolling band in the glass and fine ceramics industry. Industria usoara 9 no.9:354-358 S '62.

BARUHOGLU, Ilie, ing.

Technical normalizing of glass chiseling. Industria usoara 10 no.4:153-156 Ap '63.

BARUKH, Zh.

Subjective and physical indices in the diagnosis of pulmonary changes in pulmonary tuberculosis. Suvrem med., Sofia no.12:26-34 '60.

1. Iz Sanatoriuma Iskrets (Glaven lekar Ior. Popov)
(TUBERCULOSIS PULMONARY compl)
(PULMONARY HEART DISEASE diag)

BARUKH, Zh.

Preoperative preparation of the heart in thoracic surgery in pulmonary tuberculosis. Khirurgiia, Sofia 13 no.5:490-498 '60.

1. Sanatorium, Iskrets. Gl.lekar; I.Popov.
(TUBERCULOSIS PULMONARY surg)
(HEART physiol)

BARUKOVA, YU. A.

PHASE I BOOK EXPLOITATION SOV/4643

Leningrad. Glavnaya geofizicheskaya observatoriya

Voprosy fiziki oblakov i aktivnykh vozdeystviy (Problems in the Physics of Clouds and Active Modification) Leningrad, Gidrometeoizdat, 1960. 93 p. (Series: Its: Trudy, vyp. 104) 1,000 copies printed.

Sponsoring Agencies: Glavnaya geofizicheskaya observatoriya imeni A.I. Voyeykova; Glavnoye upravleniye gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR.

Ed. (Title page): N.S. Shishkin, Doctor of Physics and Mathematics; Ed. (Inside book): L.P. Zhdanova; Tech. Ed.: A.N. Sergeyev.

PURPOSE: This collection of articles is intended for scientific workers in meteorology and for graduate students in hydrometeorological institutes.

COVERAGE: This issue of the Transactions of the Main Geophysical Observatory contains articles dealing with problems of cloud formation and microstructure, and with methods of active modification of clouds and fog. Instruments used in cloud investigation are described, and the use of electronic computers for the

~~Card 1/3~~

solution of problems in the physics of precipitation formation is discussed. No personalities are mentioned. References follow each article.

TABLE OF CONTENTS:

Shishkin, N.S. Calculating the Velocity of Vertical Development of Convective Clouds 3

Barukova, Yu.A., I.I. Kamaldina, T.S. Uchevatkina, and N.S. Shishkin. On the Amount and Intensity of Precipitation From Convective Clouds 14

Khimach, M.A., and N.S. Shishkin. Changes in the Microstructure of Convective Clouds During the Period of Precipitation 25

Chuvayev, A.P. Data on the Crystallization Temperature of the Tops of Thick Cumulus Clouds in Different Physical Geographic Regions 39

Klinov, F.Ya. Some Characteristics of the Solid Phase of Water in the Atmosphere at Low Subzero Air Temperatures 46

Zabrodskiy, G.M., V.A. Zaytsev, A.A. Ledokhovich, and N.A. Titov. Experiment in Atmospheric Sounding on a TU-104 Aircraft 53

BARUKOVA, Yu.A.; UCHEVATKINA, T.S.

Use of the "Ural-1" machine in calculating the growth of droplets and spherical ice particles in convective clouds. Trudy GGO no.145:3-12 '63. (MIRA 17:2)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203810005-2"

ABSTRACT: [illegible]
and spherical ice particles in convection clouds in the case of an ascending current with

ASSOCIATION: Glavnaya geofizicheskaya observatoriya, Leningrad (Main Geophysical Observatory)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203810005-2"

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203810005-2"

VERSHILOVA, Nina Al'bertovna; BARULIN, A.I., red.; VASIL'YEV, Yu.A., red. izd-va; GVIRTS, V.L., tekhn. red.

[Activity of the department of technological information at the Nevskii Machinery Plant] Opyt raboty otdela tekhnicheskoi informatsii na Nevskom mashinostroitel'nom zavode imeni V.I. Lenina. Leningrad, 1961. (MIRA 15:5)
(Leningrad--Machinery industry)
(Leningrad--Technology--Information services)

BARULIN, I.

84-5-19/42

AUTHOR: Barulin, I.

TITLE: Gnat Extermination (Istrebleniye gnusa)

PERIODICAL: Grazhdanskaya Aviatsiya, 1957, Nr 5, p. 25 (USSR)

ABSTRACT: The article reports on the mosquitoe extermination programme from an An-2 plane with hexachlorane or DDT in the area of the Bratsk power development (Irkutsk oblast.) The leader of the extermination is S. G. Grebel'skiy. A sprayer is attached to an An-2 plane, using a suspension of hexachlorane (aqueous solution of emulsified hexachlorane) or DDT. The concentration in the solution is 2.5 to 4.5 per cent of poisonous substance. The plane carries 1000 litres and uses 100 litres per hectare. The solution is prepared on the spot. The mixing equipment consists of two 2000-liter vats and three water tanks with a capacity of 9-10 cubic metres (not clear whether individually or in total.) First the vat is filled with the emulsion (presumably of hexachlorane), then water is pumped into it. Compressed air is used to force the solution out of the vat as soon as mixing operations are completed. Islands and river banks (presumably of the Angara) are the main target of gnat spraying. Maps on a scale of 1:2000 are available. The plane flies 2000 metres in one direction at a height of 5 to 30 metres, then turns back and flies the same distance in the opposite direction, the space between two paths being about 100 metres. Thus far the spraying program has

Card: 1/2

BARULIN, K. I.

Barulin, K. I. -- "The chemistry and pharmacodynamics of sex hormones and their synthetic analogs," In the symposium: Voprosy prakt. urologii, Moskva, 1949, p. 85-109

SO: U-5241, 17 December 1953, (Letopis 'zhurnal 'nykh Statey, No. 26, 1949).

BARULIN, L.G.

Equivalent circuit transformations in the analysis of stability.
Elektrosviaz' 18 no.7:40-45 Jl '64. (MIRA 17:10)

GOGOLIN, A., kand.tekhn.nauk; BARULIN, N., insh.

Air conditioning in stores and restaurants. Khol.tekh. 35 no.5:9-13 S-O '58. (MIRA 11:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kholodil'noy promyshlennosti.
(Restaurants, lunchrooms, etc.--Air conditioning)
(Department stores--Air conditioning)

14(1) SOV/66-59-2-20/31

AUTHORS: Barulin, N., Kholopova, A.

TITLE: Refrigerating Plants of the Polish Peoples Republic (Kholodil'niki Pol'skoy Narodnoy Respubliki)

PERIODICAL: Kholodil'naya tekhnika, 1959, Nr 2, pp 62-67 (USSR)

ABSTRACT: The majority of cold storage plants have been built in Poland within the last 10 years; the Central Administration of the Refrigeration Industry controls at present 22 cold storage plants, which have a capacity of 3,000 and 7,500 tons each. Freezing and storing rooms for fish are separated from the rest of the plant. Elevators are of 1,200 and 1,500 kg capacity. Freezers are of the tunnel type and freezing at -30°C lasts 16 hours. The application of air channels and fans in storage rooms for frozen food keeps products in a frozen state. Compressors are of the single and double stage types, horizontal as well as vertical ones. There exists a system of remote level indication and remote temperature measuring. Newly built cold storage plants will be equipped with automatic level and temperature control. Operation of compressors is not automated. Constant temperature in the storage rooms is maintained by means of thermostats. Some cold storage

Card 1/3

plants are equipped for deep freezing of berries and vegetables, others for producing ice at a rate of 180 tons per day. The most modern cold storage plant is located in Gdansk having a capacity of 7,000 tons. The ammonium installation ensures 3 different evaporation temperatures: -40° for freezing, -27° for keeping products frozen and -10° for general storage. Of the 8 vertical compressors installed in the Gdansk cold storage plant 5 are single stage of the S2x200-type, and 3 of the S4-225-type, which are acting as booster compressors. In the same department are also placed a telethermometric station and logometers for simultaneous recording of temperatures in 6 storage rooms. In accordance with technical documentation elaborated by TsBKhA and KhU (Central Bureau of Chemical Apparatus and Refrigerating Installations) piston type compressors for ammonium are being built in Poland also for chlorous methyl and Freon-12; those mostly employed are single and double stage vertical S-type compressors with 320 to 600 rpm, operating on ammonium. TsBKhA and KhU have developed a scale of V, W and VV-shaped compressors

operating on Freon-12 and ammonium which have a cold producing capacity ranging from 2,800 to 160,000 standard kcal/hr at 960 rpm. Oil separators with ceramic rings ensure high grade purification of vapors of cooling agent.
There are 1 photo, 1 diagram and 4 sets of diagrams.

BARULIN, N.Ya., inzh.; NAZYROV, R.N., inzh.

Self-contained air conditioner for surgery rooms. Khol.tekh. 39 no.4: 12-16 Jl-Ag '62. (MIRA 17:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kholodil'noy promyshlennosti (for Barulin). 2. Samostoyatel'noye konstruktorsko-tekhnologicheskoye byuro po proyektirovaniyu meditsinskikh i fiziologicheskikh priborov (for Nazyrov).

GOGOLIN, Anatoliy Arkad'yevich, kand. tekhn. nauk; BARULIN, Nikolay Yakovlevich, inzh.; KAPLUN, M.S., red.; MEDRISH, D.M., tekhn. red.

[Air conditioning] Konditsionirovanie vozdukha. Moskva, Gostorgizdat, 1963. 126 p. (MIRA 17:2)

GOGOLIN, A.A., kand. tekhn. nauk; BARULIN, N.Ya., inzh.; KANYSHEV, G.A.; SHINKA. V.Ya.

All-purpose self-contained air conditioners using Freon-22. Khol. tekh. 40 no.4:12-16 Jl-Ag '63. (MIRA 16:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kholodil'noy promyshlennosti (for Gogolin, Barulin). 2. Tsentral'noye konstruktorskoye byuro kholodil'nogo mashinostroyeniya (for Kanyshev, Shinka.)
(Air conditioning—Equipment and supplies)

BARULIN, N.Ya., inzh.

Calorimetric method for testing self-contained air conditioners. Khol. tekh. 40.no.4:48-50 Jl-Ag '63. (MIRA 16:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kholodil'noy promyshlennosti.
(Air conditioning--Testing) (Calorimetry)

BARULIN, N.Ya., inzh.

Textbook on air conditioning. Khol. tekh. 40 no.4:62-63 Jl-Ag '63. (MIRA 16:8)

(Air conditioning)

L 04557-67 EWT(d)/EWT(m)/EWP(w)/EWP(c)/EWP(v)/T/EWP(k)/EWP(h)/EWP(1) IJP(c)

ACC NR: AP6021263 (A) SOURCE CODE: UR/0066/66/000/003/0043/0046

WW/EM/RH

AUTHOR: Morozov, P. I.; Barulin, N. Ya.

ORG: none

TITLE: The modernization of individual and area air conditioners for use in precision assembly rooms

SOURCE: Kholodil'naya tekhnika, no. 3, 1966, 43-46

TOPIC TAGS: air conditioning equipment, vibration damping / 1KS12 air conditioner, KNP3 air conditioner

ABSTRACT: Improvements in 1KS-12 and KNP-3 air conditioners are described. These air conditioners have been modified so as to increase the effectiveness of air purification and decrease their noise level. By mounting the blower and electric motor on the same frame, the noise level of the LKS-12 was lowered by 6-8 db. The use of AD-8 shock absorbers for the compressor and blower reduced the vibration of the compressor by 22 db and the vibration of the blower by 17 db. The noise level was further decreased by insulating the walls of the conditioner with polyurethane foam material 40 mm thick. The improved model has a two-stage air purification system. A sponge filter consisting of polyurethane layers (5 mm) comprises the first stage; an impregnated filter made of FPD-70-0.5 filtering material makes up the second stage. The effectiveness of the fil-

Card 1/2 UDC: 628.83

L 04557-67

ACC NR: AP6021263

ters (for particles of 0.13-0.17 μ) is up to 99%. The basic technical data on the 1KS-12 conditioner are given in *Khodil'naya tekhnika*, No. 4, 1963. Improvements in the KNP-3 conditioner took the form of a noise damping device and highly effective filters. Air filters similar to those described above and noise silencers consisting of polyurethane shielding are described. Orig. art. has: 5 figures.

SUB CODE: 13/ SUBM DATE: none

Card 2/2

L 03554-65 EWT(m)/EWP(w)/EPF(c)/EPF(n)-2/EWA(h)/EWG(m)/EWP(t)/EWP(b)

SOURCE: Atomnaya energiya, v. 18, no. 6, 1965, 640-642

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000203810005-2"

SUBMITTED: 26Aug64 ENCL: 00 SUB CODE: NP

FRIDKIN, V.M.; BARULIN, Yu.N.

Isoopacity of amorphous selenium films containing sulphur. Fiz. tver. tela 4 no.10:2978-2979 O '62. (MIRA 15:12)

1. Institut kristallografii AN SSSR, Moskva.
(Selenium) (Photoelectricity)

24.3500 1035, 1138, 1155
3.1205 (1395)

22872
S/077/61/006/004/004/004
D051/D113

AUTHORS: Zheludev, I.S.; Barulin, Yu.N.; and Fridkin, V.M.

TITLE: On a new version of the process of electronic photography

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, v. 6, no. 4, 1961, 300-301

TEXT: The authors propose a new method of electronic photography which is essentially different from the usual versions where the latent image is dependent upon the distribution of charges on the layer surface. The method excludes the use of any developers known in electronic photography. It is based on the application of a reverse electrical field and the photographic process is negative. Previous investigations (Ref. 1) revealed electroluminescence of permanently polarized ZnS layers under the action of a constant electric field. The duration and intensity of this phenomenon, which is particularly pronounced in ZnS-Cu polycrystalline layers when a constant electric field opposite in direction to that of the initial field is applied, depend on the charge density of the layer surface and on the layer properties. It was established (Ref.1) that when such a polarized layer is irradiated in the near infrared region, an uncommon extinguishing effect is

Card 1/3

22872

S/077/61/006/004/004/004
D051/D113

On a new version of the process ....

observed, consisting in a diminution of luminescence on the application of the reverse electric field to the layer. On radiation the density of the surface charge remained practically unchanged, i.e. the indicated effect is not due to depolarization. Experiments were conducted in order to obtain and visualize the latent image on ZnS-Cu layers according to the above-mentioned method. Activated ZnS powder was dispersed in an alcohol solution of polyvinylbutyral. The layers, which were approximately 100μ thick and coated on paper, were subjected to a corona discharge and exposed through a negative film. A standard incandescent bulb, where T_{lum} =2850°K, served as the light source. The use of light filters permitted the layer to be exposed in different spectral regions. The latent image was visualized by applying a reverse electric field to the exposed layer. In this way images could be obtained in the near infrared region for $\lambda < 1.1\mu$. At present, the sensitometric aspects of this process, the resolving power of the layer, and other characteristics are being investigated. The authors also emphasize that the process studied by them is basically different from the photographic process described by H.Kallmann and J. Rennert (Ref. 2: J.Opt.Soc.America, 1958, 48, 812). I.N. Orlov and A.M.Bonch-Bruyevich are thanked for their help.

Card 2/3

22872
S/077/61/006/004/004/004
D051/D113

On a new version of the process ....

[Abstracter's note: essentially full translation]. There are 2 references: 1 Soviet and 1 non-Soviet-bloc reference.

ASSOCIATION: Institut kristallografii AN SSSR (Institute of Crystallography AS USSR)

SUBMITTED: January 4, 1961

Card 3/3

44159

S/181/62/004/010/056/063
B102/B104

24.7700

AUTHORS: Fridkin, V. M., and Barulin, Yu. N.

TITLE: Iso-opacity of layers of amorphous selenium with additions of sulfur

PERIODICAL: Fizika tverdogo tela, v. 4, no. 10, 1962, 2978 - 2979

TEXT: Amorphous selenium in photoelectret state is known to be depolarized by illumination as well as by adsorption of negative ions. Continuing earlier studies (DAN SSSR, 145, 1, 1962; 143, 4, 1962) the authors investigate the depolarization kinetics of layers of amorphous selenium containing up to 33% sulfur. The iso-opacity curves (Fig. 1) were drawn for one and the same magnitude of surface charge Q and for various amounts of S. The presence of adhesion levels causes the iso-opacity curves to become bent upward at $I = I^*$ where $I^* \approx \beta_e M_e / s_e$; β_e is the carrier trapping cross section, s_e the cross section of interaction of the adhesion levels with photons, and M_e the adhesion level concentration. For the measurements the Se-S mixture was deposited in vacuo onto an Al base of 40°C; the rate

Card 1/2

of deposition being 1μ/min and the layer thickness ≈20μ. The layer was charged by positive ions in a corona discharge, after which the layer was illuminated by a standard incandescent lamp while the decrease of the surface charge with time was being measured. The light intensity was modified by a filter and measured with a luxmeter. As may be seen from Fig. 1, the point $I=I^*$ is shifted to the right with increasing S-concentration. M. I^* increases linearly with M. There are 2 figures.

ASSOCIATION: Institut kristallografii AN SSSR, Moskva (Institute of Crystallography AS USSR, Moscow)

SUBMITTED: June 8, 1962

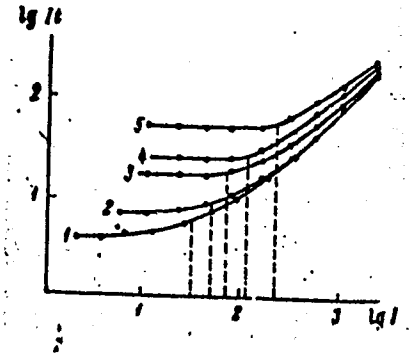

Fig. 1

Fig. 1. Legend: (1) pure Se; (2) 3wt% S; (3) 7wt% S; (4) 13wt% S; (5) 33wt% S.

FRIDKIN, V.M.; BARULIN, Yu.N.

Two mechanisms of the formation of latent electrophotographic images. Dokl.AN SSSR 145 no.1:78-81 Jl '62. (MIRA 15:7)

1. Institut kristallografii AN SSSR. Predstavleno akademikom A.V.Shubnikovym.

(Photoelectricity)

L 13357-63

ACCESSION NR: AP3001267

and from these the product of drift mobility times lifetime was computed fo. both holes and electrons. Curves of equal opacity were also drawn, and fr these the concentration of levels of hole distribution was determined, alon [illegible] corresponding activation energies. Variations in the drift [illegible]

[illegible] crystallo[illegible] [illegible] crystallo-graphy, Academy of Sciences, [illegible]

[illegible]

Card 2/2

BARULIN, Yu.N.

Effect of some parameters of electrophotographic layers on the formation of the latent image. Zhur. nauch. i prikl. fot. i kin. 10 no.2:107-112 Mr-Ap '65. (MIRA 18:5)

1. Nauchno-issledovatel'skiy institut poligraficheskogo mashinostroyeniya (NIIPoligrafmash).

L 1065-66 EWT(1)/EWT(m)/ETC/EWG(m)/T/EWP(t)/EWP(b)-3 IJP(c) RDW/JD

ACCESSION NR: AP5023982 UR/0077/65/010/005/0369/0377
772.93

AUTHOR: Barulin, Yu. N.

TITLE: Photodepolarization kinetics of selenium electrophotographic layers

SOURCE: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, v. 10, no. 5, 1965, 369-377

TOPIC TAGS: selenium, electrophotography, semiconductor carrier

ABSTRACT: A rigorous mathematical description of the process of depolarization of selenium electrophotographic layers is highly involved and is impossible at present because of the complexity and instability of the selenium structure. Nevertheless, the development of theoretical concepts of the depolarization kinetics and mechanism of formation of the latent electrophotographic layer is very useful. The author derives simple, but fairly accurate expressions describing the depolarization kinetics of electrophotographic layers for two special cases, when the nonlinearity of the potential drop is due to either recombination or capture of the carriers. The discussion centers around the depolarization of a layer of amorphous

Card 1/2

L 1065-66

ACCESSION NR: AP5023982

selenium with p-type conduction deposited on a conducting substrate with illumination of its positively charged free surface. "The author thanks V. M. Fridkin, Doctor of Physicomathematical Sciences, for reviewing the results of this work." Orig. art. has: 10 figures, 1 table, 18 formulas.

ASSOCIATION: Nauchno-issledovatel'skiy institut poligraficheskogo mashinostroyeniya (Scientific Research Institute of Printing Machinery); (NIIPoligrafmash)

SUBMITTED: 08Mar65 ENCL: 00 SUB CODE: GP

NO REF SOV: 001 OTHER: 002

Card 2/2

BARULINA, L., red.; YAKOVLEVA, T., red.; DANILINA, A., tekhn. red.

[Communist attitude toward work] O kommunisticheskom otnoshenii k trudu. Moskva, Gospolitizdat, 1962. 286 p. (MIRA 15:5)
(Labor and laboring classes)

BARULINA, L.A.

Use of Gordeev's solution in granular and lateral pharyngitis.
Vest. oto-rin. 17 no.6:43-46 N-D '55. (MLRA 9:2)

1. Iz polikliniki no.1 Ministerstva zdravookhraneniya SSSR.
(PHARYNGITIS, therapy,
Gordeev's solution)
(ANTISEPTICS, therapeutic use,
Gordeev's solution in pharyngitis)

TSEDENBAL, Yu.; BAHULINA, L.G., red.; ROMANOV, A.V., red.; RUMYANTSEV, A.M., red.; TROPKIN, N.V., red.; FEDOSEYEV, P.N., red.; BAHULINA, L.G., red.; SERBIN, Ye.M., tekhn.red.

[Socialist transformation in the Mongolian People's Republic] Sotsialisticheskie preobrazovaniia v Mongol'skoi Narodnoi Respublike. Moskva, Gos.izd-vo polit.lit-ry, 1960. 117 p. (MIRA 14:3)

1. Pervyy sekretar' TSentral'nogo Komiteta Mongol'skoy narodno-revolyutsionnoy partii (for TSedenbal).
(Mongolia--Economic policy)

Bogatina, M.V.

Rapid method of determining [illegible]

testing [illegible]

KALININA, L.S.; BAKULINA, M.V.

Rapid method of determining cobalt naphthenate by titration in nonaqueous solutions. Plast.massy no.4:47-48 '61. (MIRA 14:4)
(Cobalt—Analysis) (Naphthenic acid)

KALININA, L.S.; BARULINA, M.V.

Rapid method for determining free chlorine in epoxide resins. Plast.massy no.8:62-63 '61. (MIRA 14:7)
(Chlorine—Analysis) (Epoxy resins)

KALININA, L.S.; BARULINA, M.V.

Determination of a chloride ion in organically bound chlorine in epoxy resins. Trudy Kom.anal.khim. 13:170-174 '63. (MIRA 16:5)

(Epoxy resins) (Chlorides)

BARULINA, N.A.; BOGDANOVA, Ye.S.; VASIL'YEV, Yu.M.; GEL'SHTEYN, V.I.; KISELEVA, N.S.

Effect of RNA preparations on the growth of transplanted hepatomas in vivo and on protein synthesis in tumor cells in vitro. Biokhimiia 30 no. 3:505-513 My-Je '65 (MIRA 19:1)

1. Institut biokhimii imeni Bakha AN SSSR i Institut eksperimental'noy i klinicheskoy onkologii AMN SSSR, Moskva.